

Amendments to the Specification:

Please amend the Summary of the Invention in the application by:

a) deleting in its entirety the paragraph at lines 20 to 34 on page 2;

b) amending the paragraph that starts at line 35 on page 2 and ends at line 15 on page 3 as follows:

The present invention is ~~also~~ a method for use with those of a plurality of commands sent by at least one client on a network connected to a network communications coupler designated by the at least one client as delayed response commands. The method comprises ~~has the steps of:~~

A' designating by the at least one client by means of a predetermined key value provided by said at least one client which of the commands are delayed response commands, said at least one client using said predetermined key value to retrieve a reply to said at least one delayed response command executed by said coupler;

storing in the coupler a first instance of a template, where the first instance is used to store in the coupler at least one of the delayed response commands during execution of the at least one delayed response command by the coupler; and

storing in the coupler a second instance of said template, where the second instance is used to store in the coupler a reply to the at least one delayed response command executed by the coupler until the reply is retrieved by the client.

c) Adding at the end thereof the following new paragraphs:

The present invention is also a system that comprises:

a first network having at least one client connected thereto;

a second network;

the first and second networks having different protocols;

a network communications coupler connected to both the first network and the second network;

09/676,075

the at least one client sending a plurality of commands to the coupler and designating at least one of the commands as a delayed response command;

the coupler for storing a first instance of a template, the first instance used to store in the coupler at least one of the delayed response commands during execution of the at least one delayed response command by the coupler; and for storing a second instance of the template, the second instance used to store in the coupler a reply to the at least one delayed response command executed by the coupler until the reply is retrieved by the client.

The invention is further a system that comprises:

a first network having at least one client connected thereto;

a distributed control system comprising a second network;

the first and second networks having different protocols;

A' a network communications coupler connected to both the first network and the second network;

the at least one client sending a plurality of commands to the coupler and designating by means of a predetermined key value provided by the at least one client at least one of the plurality of commands as a delayed response command, the at least one client using the predetermined key value to retrieve a reply to the at least one delayed response command executed by the coupler;

the coupler for storing a first instance of a template, the first instance used to store in the coupler at least one of the delayed response commands during execution of the at least one delayed response command by the coupler; and for storing a second instance of the template, the second instance used to store in the coupler a reply to the at least one delayed response command executed by the coupler until the reply is retrieved by the client.

---

Please amend the Description of the Preferred Embodiment(s) as follows:

a) the paragraph at lines 17 to 23 on page 4 as follows:

A<sup>2</sup>  
Second stack 40 includes a first layer 40a and a second layer 40b. First layer 40a provides the interface between the mapping program ~~30~~ 36 and the second layer 40b. Second layer 40b provides the control network interface between first layer 40a and the operating system software 42. A detailed description of layer 40b is given below in connection with Fig. 3.

b) the paragraph that starts at line 31 on page 5 and ends at line 12 on page 6 as follows:

A<sup>3</sup>  
The client may specify that it prefers a delayed (non blocking) response for certain commands sent by the sender which commands are known as keyed commands. The keyed command management component 54 manages the execution of keyed commands and their replies. The processing of the keyed commands is begun at the request of the client and when such processing is requested a keyed request is sent from the control network interface command interpreter 52 to the keyed command management component 54. A special reply which indicates that the command processing has started is supplied to the client by CNI Command Interpreter 52. During the command processing the client may proceed with other work. When the processing of the command is completed a reply to the client is generated that is stored in keyed reply storage 62, which manages the storage and retrieval of replies to keyed commands. The reply may be retrieved from by the client at the convenience of the client.

c) the paragraph at lines 19 to 25 on page 7 as follows:

A<sup>4</sup>  
Nodes of the remote control network may change their status. For example, a node status may change to offline, online or busy. CNI ~~40b~~ 76 maintains records of the node status. These records are updated by node status monitor 64 which also notifies the export and import components 66 and 68, respectively, of the exception report (XR) database 67 of these changes.

d) the paragraph at lines 29 to 32 on page 9 as follows:

A<sup>5</sup>  
Class ClientPoint ~~112~~ 110 and its three derived classes

09/676,075

A5 112, 114 and 116 provide the access methods GetStatus() 110a and GetValue() 110b, for example, to retrieve information from or about the data source.

---

e) the paragraph at lines 25 to 35 on page 10 as follows:

---

A6 In the example shown in Fig. 7, the AnalogFieldPoint 104 is able to provide the data in the correct form to the AnalogClientPoint 114 and HiResClientPoint 116, but not to the DigitalClientPoint 112, as the AnalogFieldPoint 104 does not support the GetDigitalData() method 100a. Since the GetDigitalData() method 100a is not supported by the AnalogFieldPoint class 104, to provide the ~~data to~~ data in correct form to the DigitalClientPoint 112, the base class FieldPoint 100 provides the default GetDigitalData() method 100a that supplies the error indication.

---

f) the paragraph that begins at line 33 on page 11 and ends at line 9 on page 12 as follows:

---

This simple command/reply protocol presentation has three benefits as follows:

a. The command is executed directly by invoking the processCommand method of a CNI object

A7 The Client Application instantiates a CNI object, constructs a command string and invokes the CNI processCommand method, passing in the command string. When the method returns, processing is complete. This is distinct from the prior art coupler mentioned above in that the Client Application in that coupler has to manage a hardware connection and tolerate all of its vagaries, as well as having no indication of the completion of command processing.

---

g) the paragraph at lines 12-20 on page 13 as follows:

---

A8 Keyed command management 54 includes a template, known as the keyed storage template which is shown below, for the storage and management of heap-resident objects where pointers to individual objects are stored and retrieved using a "key" or

09/676,075

A8  
index value provided by the user, which in this embodiment is the client. The key or index value specified by the user is used for designating and retrieving a reply thereby allowing the user to match the ~~reply~~ reply with the keyed command.

---

h) by inserting after line 28 and just before line 30 on page 14 the following:

---

A9  
for( int i = 0; i <= MAXKEYVAL; i++)

---

i) the paragraph at lines 1 to 5 on page 17 as follows:

A10  
As those of ordinary skill in the art can appreciate the keyed storage template is a software mechanism for the storage of pointers to a finite number of like software objects by association with a user-supplied key value, which mechanism has the following features:

---